



Project 6: Build Data Dashboards

Submitted by: Bhavita Thakore

- Project Database: Flight Delays And Cancellation
- Database Resource: Kaggle
- Link to Project on Tableau Public - <https://public.tableau.com/profile/bhavita.thakore#!/vizhome/Project6BuildDataDashboards/StoryFlightDelays?publish=yes>



About the project:

This project visualizes the flight delays and cancellation for the year of 2015. The database is used from Kaggle to create visualization through dashboards and stories in Tableau.

The insights are focused on the specific aspects of flight delays related to the airline having the highest number of flight delays.

Each slight represents each insight with link to the Tableau public dashboard.

Insight 1: Which airline had the most flight departure delays?

- Link: <https://public.tableau.com/profile/bhavita.thakore#!/vizhome/Project6BuildDataDashboards/Insight1>
- Summary: For all the months in year 2015, Southwest airline had the most number of flight departure delays in total of 648,419. For year 2016, this airline may not be a better alternative for travel across the USA.
- Design Comment: The horizontal bar chart sorted by descending order gives a clear indication by having Southwest airline on the top of list in flight delays. The bar chart also helps in comparison between categorical and numerical variables.
- Resource: N/A

Insight 2: What caused Southwest flight departure delays?

- Link: <https://public.tableau.com/profile/bhavita.thakore#!/vizhome/Project6BuildDataDashboards/Insight2>
- Summary: There were five different reasons to cause flight delays – late aircraft, system, arrival, weather, and security. Among these five reasons, late aircraft was the major cause of flight delays with average of 27.13. This indicates that the airline may have negligence or less control over their aircraft maintenance to complete on time. Surprisingly, weather delay has the second lowest average delay numbers with the average difference of 24.82.
- Design Comment: The vertical bar chart sorted by descending order gives a clear indication by having the highest bar for number of average late aircraft delays reason category.
- Resource: N/A

Insight 3: How does Southwest departure delays varies throughout the year?

- Link: <https://public.tableau.com/profile/bhavita.thakore#!/vizhome/Project6BuildDataDashboards/Insight3>
- Summary: The flight delay varies by month to month throughout the year. The highest number of delays are during June and July. Factors like summer vacation tourism, school closure, tropical and thunderstorms could bump the traffic and cause delays during this time. September and October had the lower number of delays. However, the number of delays for these two months are still high in general.
- Design Comment: The small multiple line chart gives clear insight of flight delays throughout the year broken down in each quarter as well as month by month data visualization.
- Resource: N/A

Insight 4: Southwest departure delays in different states in the USA

- Link: <https://public.tableau.com/profile/bhavita.thakore#!/vizhome/Project6BuildDataDashboards/Insight4>
- Summary: California with 110,506 and Texas with 80,536 number of total flight departure delays has become the top two states in the USA. Both states are geographically large. In California, Southwest has the metro area airports like Los Angeles, San Francisco, San Diego, etc. being busier than usual could be the major reason for having the highest number of departure delays.
- Design Comment: The map chart perfectly give the geographical insights for the Southwest airline's departure delay issues.
- Resource: N/A